

JAPANESE PATENT OFFICE

PATENT JOURNAL

KOKAI PATENT APPLICATION NO. SHO 62[1987]-90959

Int. Cl. ⁴ :	H 01 L 25/04 21/92
Sequence Nos. for Office Use:	7638-5F 6708-5F
Application No.:	Sho 60[1985]-231557
Application Date:	October 17, 1985
Publication Date:	April 25, 1987
No. of Inventions:	2 (Total of 5 pages)
Examination Request:	Not requested

SEMICONDUCTOR DEVICE MANUFACTURING METHOD

Inventor:	Kenzo Hatada, Matsushita Denki Sangyo K.K., 1006 Oaza-kadoma, Kadoma-shi
Applicant:	Matsushita Denki Sangyo K.K., 1006 Oaza-kadoma, Kadoma-shi
Agents:	Toshio Nakao, patent attorney, and 1 other

[There are no amendments to this patent.]

Claims

1. Semiconductor device manufacturing method consisting of a process wherein a metal projection formed on a second substrate is transferred and bonded to an electrode on the principal face of a first substrate, on which a semiconductor element is formed, and consisting of a process wherein the aforementioned electrode on the first substrate is positioned on an electrode provided on the principal face of a third substrate composed of a multilayer wire body, with pressure and heating being applied, and with the aforementioned electrodes being bonded to each other via the aforementioned metal projection.

2. The semiconductor device manufacturing method described in Claim 1, wherein a number of first substrates are bonded to electrodes on the principal face or another face of a third substrate via metal projections.

3. The semiconductor device manufacturing method described in Claim 1, wherein a fourth substrate is bonded to the opposite face of the first substrate via a metal projection.

4. The semiconductor device manufacturing method described in Claim 3, wherein the dimensions, functions, and material qualities of multiple first and fourth substrates are different.

5. The semiconductor device manufacturing method described in Claim 1, wherein an external lead is connected at least to an electrode provided on the outer circumference of the third substrate.

6. A semiconductor device manufacturing method consisting of a process wherein a metal projection formed on a second substrate is transferred and bonded to an electrode on a third substrate composed of a multilayer wire body, as well as a process wherein

an electrode provided on the principal face of a first substrate, on which a semiconductor element is formed, and the electrode on the aforementioned third substrate are positioned together, then with pressure and heating being applied, and with the electrodes being bonded to each other via the aforementioned metal projection.

7. The semiconductor device manufacturing method described in Claim 6, wherein a number of first substrates is bonded via metal projections to electrodes on the principal face and the opposite face of the third substrate.

8. The semiconductor device manufacturing method described in Claim 6, wherein a fourth substrate is bonded to an electrode on the opposite face of the first substrate via a metal projection.

9. The semiconductor device manufacturing method described in Claim 8, wherein the dimensions, functions, and material qualities of multiple first and fourth substrates are different.

10. The semiconductor device manufacturing method described in Claim 6, wherein an external lead is connected at least to an electrode provided on the outer circumference of the third substrate.

* * *